

## 802.11 Wireless Network

### Product Summary

The ITS Wireless Network product provides 802.11b wireless connection to the State Wide Area Network for authorized users. 802.11g and/or 802.11a can be provided on request. Wireless coverage is provided in locations at the request of individual agencies. Performance is subject to the vagaries of the 802.11 unlicensed radio frequency spectrum and the physics of broadcast signal transmission.

The 802.11 Wireless Network is a service for state employees and employees of local governments and organizations who travel among state facilities and work in meeting rooms or other common areas within their agency locations.

Authorized users can access the 802.11 Wireless Network at any of the access locations throughout the state. Ongoing access to the 802.11 Wireless Network is provided through the State Wide Area Network (WAN). There is no additional monthly access charge for paying WAN customers.

Agency customers may have ITS install and manage 802.11 Wireless Network access points at their locations. Agencies may also install 802.11 Wireless Network access points at their locations configured as part of the interoperable 802.11 Wireless Network. ITS provides installation and configuration instructions.

The 802.11 Wireless Network standards and configuration provide for interoperability among state employees at state facilities. The 802.11 Wireless Network standards also provide for authenticated, authorized wireless access to protect State IT resources.

### Product Features

Wireless Network Features	
Feature	Description
<b>Site Survey and Installation Estimate</b>	<ul style="list-style-type: none"> <li>Equipment and installation estimate developed and presented for customer approval prior to implementation.</li> </ul>
<b>Access point</b>	<ul style="list-style-type: none"> <li>802.1x IEEE standards compliant.</li> <li>WPA and EAP compatible.</li> <li>Tested access point options are documented in the ITS 802.11 Wireless LAN Architecture and Standards document published on the product web page.</li> </ul>
<b>RADIUS</b>	<ul style="list-style-type: none"> <li>Cisco Secure ACS (Access Control Server).</li> </ul>
<b>User authorization</b>	<ul style="list-style-type: none"> <li>Challenged access limits access to authorized users.</li> <li>Users are authorized by membership in an authentication directory.</li> </ul>
<b>Authentication directory</b>	<ul style="list-style-type: none"> <li>Utah Master Directory (UMD).</li> <li>LDAP compliant.</li> </ul>
<b>Network connection</b>	<ul style="list-style-type: none"> <li>Segmented Wireless LAN security using VLANs (Virtual LANs).</li> <li>State employees obtain the same access as their local wired network.</li> <li>Microsoft SMB file sharing is restricted.</li> </ul>

<b>802.1x wireless adapter standards – options for customer purchase</b>	<ul style="list-style-type: none"> <li>802.1x IEEE standards compliant.</li> <li>WPA compatible.</li> <li>Tested adapters are listed in the System Requirements section below and on the product web page.</li> </ul>
<b>Client software standard – option for customer purchase</b>	<ul style="list-style-type: none"> <li>Port-based access control client software for adding EAPOL (EAP over LAN) data to the MAC header of the Ethernet frame.</li> <li>Encryption of user credentials and data.</li> <li>Client Software standard is listed in the System Requirements section below and on the product web page.</li> </ul>
<b>802.11 Architecture and Standards document</b>	<ul style="list-style-type: none"> <li>ITS-maintained document detailing the design and standards of the secure, statewide interoperable 802.11 Wireless Network system.</li> </ul>
<b>Wireless Access Point Installation documentation</b>	<ul style="list-style-type: none"> <li>ITS-maintained documentation for customer installation of wireless access points to comply with the secure, statewide interoperable 802.11 Wireless Network.</li> </ul>
<b>Client Software Installation documentation</b>	<ul style="list-style-type: none"> <li>ITS-maintained documentation for customer configuration of the standard client software to comply with the secure, statewide interoperable 802.11 Wireless Network.</li> </ul>
<b>State Interoperable Wireless LAN coverage map</b>	<ul style="list-style-type: none"> <li>ITS-maintained map or other documentation indicating areas throughout the state with 802.11 Wireless Network connectivity for authorized users.</li> </ul>

## Product Benefits

Wireless LAN Benefits
Highest level of authentication and encryption for secure access to state IT resources.
Access provided for authorized users only.
Enterprise interoperability. Ability for authorized users to access the system wherever installed throughout the state.
Technology and industry standards based. The product will evolve and be enhanced in step with technology and industry standards.
Enterprise serviceability. Architecture and standards provide for remote management, configuration, diagnosis and support of the system.
Expert wireless service. Specialized radio technicians provide professionally tuned and optimized systems.
Option for agencies to install, configure, and register 802.11 Wireless Network access points.

## Services Not Included with this Product

Services Not Included	
Feature	Explanation
<b>Wireless adapter</b>	<ul style="list-style-type: none"> <li>Customer agencies are responsible for purchasing a standards-approved wireless adapter for each of their agency users.</li> <li>See the list of tested adapters in the System Requirements section below.</li> </ul>

<b>Client software</b>	<ul style="list-style-type: none"> <li>Customer agencies are responsible for purchasing the Funk Software Odyssey Client Software for each of their agency users.</li> <li>The Odyssey Client Software can be ordered from ITS using the on-line order form on the product web page.</li> <li>Installation and configuration instructions are provided by ITS.</li> </ul>
<b>Required WAN connection</b>	<ul style="list-style-type: none"> <li>If the location at which the Wireless Network access point is requested does not have a WAN connection that supports VLAN services, additional hardware costs may apply and will be provided in the estimate.</li> <li>If additional WAN connection hardware is required, after installation ITS will own and manage that hardware.</li> </ul>
<b>Non-state employee access</b>	<ul style="list-style-type: none"> <li>802.11 Wireless Network access is for state employees and local government employees.</li> <li>Access is not provided for general citizenry.</li> </ul>
<b>Support of non-ITS standard Wireless LANs</b>	<ul style="list-style-type: none"> <li>ITS will not provide support for any 802.11 Wireless LAN system installed by a customer that does not comply with the ITS product standard.</li> </ul>

### Related ITS Services

Related ITS Products	
Product	Description
<b>Site survey and installation estimate</b>	<ul style="list-style-type: none"> <li>Site survey and estimate of equipment and installation required to implement a 802.11 Wireless Network access point(s) in customer-specified location(s) and coverage areas</li> </ul>
<b>System installation</b>	<ul style="list-style-type: none"> <li>Install access points per site survey.</li> <li>Configure access points for secure interoperability.</li> <li>Adjust access points for optimal coverage and signal.</li> <li>Install required router(s) and switch(es).</li> <li>Configure VLAN.</li> <li>Verify coverage and signal.</li> <li>Verify authenticated access.</li> <li>Charges are included in the estimate provided to the customer.</li> </ul>
<b>Support for non-ITS installed systems</b>	<ul style="list-style-type: none"> <li>ITS can provide network, wiring, and wireless technical support for 802.11 Wireless Network access point(s) installed by a customer using the ITS architecture standards.</li> <li>Standard ITS technician and consulting rates apply</li> </ul>

### ITS Responsibilities

ITS Responsibilities
ITS Customer Relationship Managers are responsible for verifying with the customer agency's IT Director that a 802.11 Wireless Network access point order is in line with the agency's IT direction
ITS—in its responsibility for maintaining the integrity and security of the State WAN, is responsible for shutting down 802.11 Wireless Network access points that have been infiltrated by unauthorized users.

## Customer Responsibilities

Customer Responsibilities	
	The customer is responsible for adhering to their agency's policies and procedures in submitting orders that have been properly approved.
	The customer's agency LAN administrator is responsible for configuring their agency's 802.11 Wireless Network users' laptops or PDA devices with appropriate Client Software and Wireless Adapters.
	To manage 802.11 Wireless Network access points as part of the secure, interoperable system, the customer must permit access to applicable network routers and switches.
	802.11 Wireless Network users are responsible for complying with the State Acceptable Use Policy and the State Information Security Policy.

## ITS Customer Support

ITS Customer Support	
	Help Desk business hours are Monday through Friday, 7:30 a.m. to 5:30 p.m.
	Help Desk off-hours provide for 24 hours a day, 7 days a week (24x7) customer support.
	Problems can be reported 24x7 via phone (538-3440) or on-line ( <a href="http://its.utah.gov/reportaproblem/reportaproblem.htm">http://its.utah.gov/reportaproblem/reportaproblem.htm</a> ).
	On-line problem submissions are monitored only during business hours.
	Problem prioritization is based on importance of the system affected, severity of system degradation, and number of affected users.
	Problem resolution is managed using a documented Problem Management Process.
	Initial contact targets: Low priority – 2 business hours; Medium priority – 2 business hours; High priority – 1 clock hour; and Urgent priority – 30 clock minutes.
	Total time to resolution targets: Low priority – 12 business hours; Medium priority – 10 business hours; High priority – 6 clock hours; and Urgent priority – 3 clock hours.
	On-line chat enables customers to initiate a live on-line discussion with a member of the Help Desk team.
	Resolution performance and escalation performance are measured regularly.
	Customer satisfaction is measured regularly.
	Outage reports are provided to communicate lessons learned and to explain future preventative measures.

## System Requirements

System Requirements	
<b>Laptop platforms</b>	<ul style="list-style-type: none"> <li>Windows XP, 2000, 98, ME.</li> </ul>
<b>PDA platform</b>	<ul style="list-style-type: none"> <li>Windows CE.</li> <li>Pocket PC – Windows XP, 2000, 98, ME</li> <li>Windows Mobile 2003 for Pocket PC</li> </ul>

<b>Wireless Adapter</b>	<ul style="list-style-type: none"> <li>3COM 802.11 A/B/G with Xjack antenna.</li> <li>Cisco Aironet 350 802.11a/b/g.</li> <li>SMC Elite Connect 802.11b</li> <li>Enterasys RoamAbout 802.11b.</li> <li>Intel Centrino built-in capability.</li> <li>Any PEAP capable 802.1x compliant device should operate. However manufacturers sometimes implement proprietary features that may cause problems.</li> <li>Customers may request ITS test other wireless adapters.</li> </ul>
<b>Client Software</b>	<ul style="list-style-type: none"> <li>Funk Software Odyssey version 2.2 or better.</li> <li>The Odyssey Client software can be ordered from ITS.</li> <li>Client Software price list and order form are on the product web page.</li> </ul>

## Product Rate for State Employees and Agencies

Wireless LAN - Access Rate		
	Description	Rate (\$)
<b>User authorization</b>	One time charge per user to register and maintain user authorization.	<b>\$10.00</b>
<b>Monthly access charges</b>	State customers who pay WAN fees will not be charged an additional amount for this product service	<b>Not applicable</b>

Wireless LAN - Installation Rate		
	Description	Rate (\$)
<b>Site Survey and Estimate</b>	One time charge, if applicable: <ul style="list-style-type: none"> <li>Standard ITS labor rates if Wireless or Wiring Technician(s) are required.</li> <li>No charge for WAN Planner labor.</li> </ul>	<b>See ITS labor rates.</b>
<b>Installation</b>	One time charge: <ul style="list-style-type: none"> <li>Access Point(s), antenna(s) and equipment at cost plus the standard administrative fee.</li> <li>Installation at standard ITS labor rates.</li> <li>No charge for WAN Planner labor.</li> </ul>	<b>Per site survey estimate.</b>

Wireless LAN – Optional Support Rate		
	Description	Rate (\$)
<b>Support for customer installed systems (that comply with the ITS standards)</b>	<ul style="list-style-type: none"> <li>Standard ITS labor rates if Wireless or Wiring Technician(s) are required to troubleshoot or repair system.</li> </ul>	<b>See ITS labor rates.</b>

## Product Rate for Non-State Government Employees and Organizations

Wireless LAN charges or rates for employees of local governments and organizations will be determined and documented in the future.

### **Ordering the Product**

#### Access to the State 802.11 Wireless Network

State WAN customers may request access to the State 802.11 Wireless Network by submitting an on-line 802.11 Wireless Network Access order form. The order form is on the product web page.

#### 802.11 Wireless Network Installation

Customers may order a Site Survey and Estimate by submitting an on-line 802.11 Wireless Network Site Survey and Installation order form. The order form is on the product web page.

Once a Site Survey is completed by ITS, the agency's Customer Relationship Manager presents the Estimate to the customer. Based on the estimate, the customer may authorize ITS to proceed with installation or may elect to not proceed.

### **Registering an Agency-Installed Access Location**

Customers may register a State 802.11 Wireless Network access location by submitting an on-line form. The order form is on the product web page.

By registering an access location, ITS will work with the Agency to verify configuration and access. To manage 802.11 Wireless Network access points as part of the secure, interoperable system the customer must permit access to applicable network routers and switches.

ITS will list the agency location on the State Wireless Network Access Location list and coverage map.

### **Product Web Page**

Order forms, user tips, client software price list, etc can be found on the ITS Extranet web page:

<http://its.utah.gov/productservices/wirelessnetwork/wirelessdata/productfeatures.htm>

Installation and configuration instructions, coverage list and maps can be found, via SiteMinder authentication on the ITS Innerweb web page:

<http://its.innerweb.state.ut.us/customersupport/products/productsdata/networkservices/802-11wireless.shtml>

### **Product Agreement**

ITS and the Customer agree that this Product Description together with an approved Product Order Form constitute a binding agreement between both parties for the Product and related services required by the Customer. This Agreement remains in effect according to the terms specified in the Product Order Form, or until canceled by either party upon a thirty (30) day written notice.

Product and/or Service Rates listed are in accordance with the approved ITS Rate Schedules or Interim Rate Schedule. Therefore, the product description and order form replaces all other documentation, i.e., Contracts, Special Billing Agreements (SBA), Service Level Agreements (SLA), Memorandums of Understanding (MOU), etc.

To the extent that the terms set forth above conflict with an existing Contract, Special Billing Agreement (SBA), Service Level Agreements (SLA), Memorandums of Understanding (MOU), or other agreement between ITS and the customer, the parties acknowledge that the foregoing shall supercede the earlier agreement.